

Launching The Red Rocket



The Red Rocket fresh from Billy's shop waiting to be unloaded at my shop.

The Back Story

This begins a series of articles chronicling the launching (or relaunching) of my 1965 Falcon. I thought that I would begin with the car's interesting back story.

In 2008 I was attending a Fall Regional hosted by the Carolinas Chapter. One of the cars at the show was a two door post in red with a white top. It was fresh from a restoration and the car looked great. I vowed one day to have a red and white Falcon.

The years rolled by, Falcons came and went, but I had no luck finding my red Falcon. Finally, one day in the spring of 2015, a factory red and white 1965 two door post showed up on the Jacksonville, Florida Craigslist. The price was a little high for the condition of the car so I decided to wait the seller out. In the meantime, I discussed the car with fellow Heart of Texas Chapter members Frank Bell and Billy Pope. Billy was also looking for a Falcon, and he mistook my letting the seller "marinate" for awhile as a lack of interest in the car. Before I knew it, Billy bought the car and was on his way to Jacksonville to pick it up.

After returning to Texas, Billy worked diligently to prepare the car for a road trip to the 2015 FCA

Nationals in Rhode Island. Billy came oh so close to making it, but in the end, decided the car was just not ready for that long of a journey.

A few weeks later Frank, Billy, and I were at a car show when Frank received a telephone call from Chris Sword of the Founders Chapter. The story gets a little complicated at this point. Chris had bought a very nice Sedan Delivery and was negotiating the sale of the car to Wheatstate Chapter's John Saidon. Rather than buy the Sedan Delivery outright, John wanted to trade a 1969 Galaxie and a 1964 Falcon Woody for the Sedan Delivery. Chris called Frank to ask if he was interested in buying either the Galaxie or the Woody. Frank had seen the Galaxie and had previously expressed an interest in it. Frank also knew the Woody well as Frank had owned the Woody for several years but sold it to Chris who sold it to John. Keeping up? Hang in there; there's still more.

Some you may know the Woody which originally came out of Charlotte and had previously been owned by Steve Springer, who sold it to Bernard Lebo. Dennis Lebo obtained the Woody when his father passed, then sold it to Frank.

A Series by Jeff Schira

Back at the car show Billy, Frank and I talked over the advantages of owning a station wagon for cross country journeys, such as Billy's aborted trip to Rhode Island. Billy eventually saw the light, but he already owned the 1965 two door post. He had christened the car *The Red Rocket* and felt he did not have room for the Woody. Similarly, Frank wanted the Galaxie, but his garage was full. After several rounds of negotiations, I agreed to buy both the Woody and the Galaxie. The Galaxie eventually was sold to Frank, after he had a chance to sell one of his other cars. Billy agreed to trade me *The Red Rocket* for the Woody.

The deal done, Frank, Billy and I hooked up our trailers, gassed up our trucks and headed to Wichita one nice weekend in September 2015. We spent a pleasant Saturday afternoon talking and loading cars. Early Sunday morning, we headed back to Texas via Sooner State Chapter member Doug Browning's place near Oklahoma City. The stop was for me to pick up a 200 CID engine that Doug had taken out of a 1968 Falcon. Billy had rebuilt the motor in *The Red Rocket* and I had agreed to let him take that motor out of it and keep it for himself. As a result, I needed a motor, and Doug had a motor to sell.



The next stop was Billy's place in Fort Worth where we dropped off the Woody and the motor and picked up *The Red Rocket*. Then we headed back to my shop to unload the Galaxie and *The Red Rocket*.

Unfortunately for *The Red Rocket*, I already had a 1963 Falcon convertible and a 1964 Falcon hardtop in the restoration queue, so it had to wait until March 2016 for disassembling and delivery to the painter. *The Red Rocket* launch was further delayed when the painter got backed up and did not finish the car until September 2016.

When the assembly process commenced, I began to chronicle the work of putting *The Red Rocket* together and then getting it back on the road. In future articles, I will explain some of that process.

—Jeff Schira (FCA #6235)
Arlington, Texas

COMING NEXT IN THE SERIES: *Working on the Front End*



The Red Rocket, back from the painter all buffed and polished, waiting on re-assembly.

Launching The Red Rocket

✕ orking on the Front ✕ nd

After finishing the work on the rear end of "The Red Rocket," I moved on to the front end. Billy Pope had installed many new parts, but as part of our deal, he got to keep most of them. So he removed most of the new parts and the old original parts were put back on. As you can see, the old parts needed some updating.

The removal of the old parts was pretty routine, although I have never experienced the inner wheel bearing and seal sticking to the spindle before.

Everything looked a lot better after some cleaning, painting and installation of the new parts. One part that I replaced and not just cleaned up or painted was the center link. Six cylinder center links have ball joints on each end just like a tie rod end and are a wear item. In addition, factory center links do not have zerks and cannot be greased.



I prefer to replace center links with new parts.



A Series by Jeff Schira

If you haven't already, be sure to read last month's The Back Story, the first installment in the series.



One extravagance I have allowed myself is installing new bolts. I buy the correct bolts from AMK Products and they are not that expensive. I save a lot of time not cleaning and chasing the threads on the old bolts. Over time, I have found that many of the factory bolts have been replaced with what I call "floor sweepings." These nuts and bolts are so far off the originals, I can only conclude that the mechanic must have walked around the shop and picked up odds and end pieces from off of the floor and tried to pass them off as actual fitting parts.

With the suspension all completed, I finished up with all new brakes, including new drums. I will be using slotted aluminum wheels, and the drums will show through the slots so I painted the drums with flat black header paint.

All that was left then was a trip to the front end shop for an alignment and the front end was done.

—Jeff Schira
(FCA #6235)
Arlington, Texas



Launching The Red Rocket

Trunk Mounted Fuel Filler Pipe

How many of you have faced the frustration of paying thousands of dollars to have your Falcon repainted, only to have the paint ruined by the infamous Falcon fuel filler pipe tsunami? Others among you are tired of the tedious chore of dribbling gasoline into your Falcon a little at a time in an attempt to avoid the inevitable fuel spill. Several Falcons ago, I started installing trunk mounted fuel filler pipes in my Falcons. This is an easy Saturday morning project and well worth the effort.

Falcon fuel filler pipes came one of two ways. One pipe has the fuel cap locking ring formed as part of the pipe. The other style pipe has separate cap locking ring.

You will need at least two locking rings, one will remain in the existing mounting hole in the tail panel, and the other will be used on the fuel filler pipe to be mounted to the fuel tank and located in the trunk.

The locking ring that is mounted in the existing hole in the tail panel can be any locking ring that fits in the hole and allows your existing gas cap to attach securely. The locking ring and fuel filler pipe that is to be mounted in the trunk must be the original two inches in diameter so that the rubber fuel filler hose will fit the inlet on the fuel tank. A donor Falcon fuel filler pipe will fit without question but other pipes of the correct diameter will also work.

If both of your fuel filler pipes have integral locking rings, you will need to cut off the extra metal from both pipes. If you have a separate locking ring, you only need to cut off the fuel filler pipe that is to be mounted in the trunk and attached to the gas tank. The pipe to be mounted in the existing hole in the tail panel can be cut off as close to the locking ring as possible, as the locking ring is the only part of the pipe that is of interest. The pipe to be mounted inside the trunk and attached to the fuel tank needs to be cut off three to four inches from the locking ring.

Once the fuel filler pipes have been cut, you will probably want to deburr the rough edges of the cuts with a grinding or wire wheel.



Above, one fuel filler pipe has the fuel cap locking ring formed as part of the pipe. Below, this pipe has a separate cap locking ring. You'll need at least two locking rings, one will remain in the existing mounting hole in the tail panel, and the other will be used on the fuel filler pipe to be mounted to the fuel tank and located in the trunk.



A Series by Jeff Schira

The longer fuel filler pipe can be mounted directly to the rubber fuel filler hose attached to your tank. Try to mount the locking ring as horizontal as possible.

The second shorter fuel filler pipe, or the separate locking ring, is mounted in the existing hole in the tail panel. Ford used a cork gasket to avoid scratching the paint and if your gasket is worn out or missing, now is a good time to replace it. Be careful to get the orientation of the locking ring correct or the *falcon* on your 1965 Futura gas cap will be flying upside down!

If everything is correct, you should be able to re-install your existing gas cap with no obvious changes to the exterior of your car.

Except for the minor inconvenience of needing to open your trunk to fill up, this modification is one of the best improvements that you can make to your Falcon.

—Jeff Schira (FCA #6235)
Arlington, Texas

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Launching The Red Rocket

✕ engine ✕ uild and Installation

In an earlier article, I wrote about the purchase of The Red Rocket from Billy Pope. We had agreed that he'd keep the original 170 CID engine and in turn, he would install a new engine for me. I bought a 200 CID engine from Doug Browning that had come out of his 1968 Falcon, thinking that it would be a simple bolt-in operation. After the new motor sat in the weather for a couple of years, it needed to be rebuilt. Billy graciously agreed to do the teardown, delivery and pickup to and from the machine shop, then to help assemble and install the new motor.

After many months and many other projects ahead of me, my turn finally came and the new motor was disassembled and taken to the machine shop. After the machining, Billy reassembled and blue-printed the motor for me.

Due to some unforeseen circumstances, we found ourselves almost dead in the water. The backing plate between the motor and the C4 transmission did not fit. In fact, the motor did not seem to fit the transmission at all.

After nearly an hour of head scratching and frantic telephone calls, we were made aware that starting in 1967, Ford machined two different sets of transmission mounting holes in six cylinder blocks because the manual transmission bell housing is larger than the C4 bell housing. We had been trying to line up my C4 bell housing with the manual transmission mounting holes. To Billy's credit, he had started to figure this out, but an explanation from Steve Springer and another Ford mechanic buddy of ours confirmed Billy's suspicions and gave us the confidence to move forward. There are two upper sets of transmission mounting holes; C4s use the lower set and manual transmissions use the upper set. With the multiple sets of mounting holes conundrum resolved, Billy Pope, Frank Bell and I moved forward with the installation of the motor.

After the motor was set down on the motor mounts and bolted to the transmission, we had another smaller "Oh No!" moment. Billy



The day finally arrived for installation, and Billy brought the motor out to my shop.



Note the two upper sets of transmission mounting holes. C4s use the lower set as shown; manual transmissions use the upper set.

A Series by Jeff Schira

noticed a broken rocker arm shaft mount. He knew he had a spare mount at home, but we were disappointed that there would be no firing of the motor that day.

I had left off many of the peripheral items from the block, such as fuel pump, alternator, starter, water pump, etc., to try and minimize interference from these items during installation. Now it was my turn to work on the engine. It's amazing how many pieces there are to go back on an engine, and how many of them need to be painted. After a couple of days working on the motor everything was starting to come together. My working "days" usually only lasted two to three hours.

With the rocker arm repaired, and all the external parts attached, we finally fired the motor. To break in the cam, we ran the engine at around 2000 RPMs for about one-half hour. But all was not right. The engine was backfiring and running rough. One cause was found to



be a defective distributor cap. The rotor had almost worn out the contacts in the cap.

But, even after putting on a new cap, the engine was still rough. The engine timing just was not correct. After many head scratching moments, Billy theorized that the machine shop had not ground

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During assembly, I like to run a tap through all of the bolt holes, even on the rebuilt parts. It makes assembly a lot easier.



Launching The Red Rocket



After a couple of days working on the motor everything was starting to come together.

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down the valve stems properly. Sure enough, a compression test showed number three and number four cylinders had almost no compression.

As the motor has hydraulic valves, no adjustment could be made with the existing valve train. None of us was looking forward to tearing the engine apart to get the valve stems reground. Luckily, Billy had an old rocker arm with adjustable valves. We swapped rocker arms which allowed us to adjust the valves.

With the valve properly adjusted, the engine fired right and still runs as smooth as silk. We were all



To break in the cam, we ran the engine at around 2000 RPMs for about one-half hour.



The rocker arm is repaired and all the external parts attached and we finally fired the motor.



overjoyed. It had taken two Saturdays and one Sunday afternoon, but the motor install was finally complete and the hood was put back on.

Now I alone am under the gun to get The Red Rocket back on the road. Still to be done are trips to the alignment shop and the upholstery shop for a new headliner and glass installation. After that, the exterior trim needs to be finished and then the interior.

—Jeff Schira (FCA #6235)
Arlington, Texas

Next in the Series: Headliner/Glass Installation



Launching The Red Rocket

Headliner and Glass Installation

Glass on The Red Rocket had been removed for painting and now it was time to reinstall the headliner and glass. A Falcon headliner has to go underneath the windshield and back glass rubber seal, so a new headliner needed to be installed before we put in the windshield and back glass. Here are the steps we took in that process.

- 1** The first step was to spread out the new headliner and rubber seals and allow them to relax.



- 2** Billy Pope, Frank Bell and I removed the old headliner and the coffin-inspired windlace.



- 3** The mounting holes for the headliner bows were marked.



TECH TIP: Don't be afraid to put the glue on thick and heavy. Remember it needs to hold the roof insulation in place for another 50 years!



- 4** The new and correct windlace was installed.



- 5** There was insulation missing from part of the roof and C pillars so new insulation was installed in those areas.



A Series by Jeff Schira

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← Once inserted into the headliner, the headliner bows along with the headliner were installed in the car.

Starting at the back, the headliner was pulled tight and glued and clamped in place. →

The material around the C pillars was tugged and stretched to remove wrinkles. This process took two to three hours as Billy wanted everything to look just right.

The headliner was then pulled tight and glued and clamped in the front, following the same process used in the back.

Finally, the headliner was stretched side to side to remove any wrinkles and tucked in behind the tack strip to hold the headliner nice and taut.

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- 7** With the headliner installed, it was time to move on to the windshield. The rubber seal was installed on the windshield glass and the windshield trim was fitted into channels preformed in the seal. Masking tape was used to hold the trim in place temporarily.



- 8** The back glass was installed in a similar manner.



- 9** The clean up began. The glass installation process results in plenty of fingerprints and excess mastic on the glass and the paint. Using plenty of mineral spirits, paper towels and Q-Tips, it took almost as long to clean the glass as it did to install it, but everything turned out fine.



TECH TIP: If your glass cleaner is not getting the job done, try this glass cleaner from Sprayway. It cleaned up my glass in one try after regular window cleaner left the glass smeared. It is available at Walmart. *No, I am not getting paid by Sprayway.*



TECH TIP: Prior to installing the new headliner, leave screws in the mirror, sun visor and coat hook mounting holes to make the holes easier to locate after installation of the new headliner.



TECH TIP: Use an adjustable wrench to tighten the mirror arm nut at the mirror base, placing masking tape over the jaws of the wrench to avoid damaging the paint on the nut. The same trick can be used when wrenching any nut on which you want to avoid damaging the finish, such as the antenna base mounting nut.

A lot of elbow grease later, the interior of the Red Rocket is starting to look as good as the exterior. But, stay tuned, there is still much more to be done.

—Jeff Schira (FCA #6235)
Arlington, Texas

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Launching The Red Rocket

Proctology—AKA, working on the rear end

1 In my experience, most people focus on the front end of a car during restoration. Ball joints get replaced, brakes get converted to discs, maybe a bigger sway bar is needed, etc. But attention needs to be paid to the rear end of the car as well. Restoration of the rear end mechanics is often easier for the weekend mechanic than the front end.

Once The Red Rocket returned from the paint shop, I dug deep into the rear end mechanics to freshen them up and give them the attention that they deserved.

I first removed the gas tank. Nothing particularly wrong with the existing tank, but the exterior was pretty dirty from years of road debris accumulation, and the additional headroom provided by the hole in the trunk is always welcomed.



3 In the past, I have cleaned up and painted the cover. But unless the axle and the differential housing is also cleaned and painted, a freshly painted cover on an unpainted axle and housing just looks odd.

After finishing the differential, I replaced the leaf springs. Over the years, cars, like people, start to sag a little in the rear. I prefer replacing the springs to re-arching, mostly because new springs are not that expensive, especially for 1964–65 Falcons as they use the same springs and shackles as 1963–73 Mustangs. I wrote an article previously discussing how to replace the rear leaf springs in a Falcon, and I was able to replace the springs on The Red Rocket in about three hours. Not having the gas tank in place really helps with replacement of the rear spring hangers or shackles.

2 In my next step, removing the differential cover plate allowed the old gear oil to drain overnight. The next day, I scooped out the sludge that had accumulated over the years at the bottom differential. I removed three to four handfuls of goopy sludge that had not drained. This sludge will not drain out by itself and must be removed by hand. After cleaning up the differential cover, I reinstalled the cover using a new gasket.



A Series by Jeff Schira

4 After replacing the leaf springs, I turned my attention to the rear brakes. Once again, in my experience, the rear rubber brake hose has almost always been neglected. You will need to remove the rear hard brake lines to replace the rear brake hose and the wheel cylinders; I generally replace the rear hard brake lines as well. My advice, spend the extra money and have the replacement lines made from stainless steel. Stainless lines look nice and will never rust. This is also a good time to replace the axle vent line if needed.



6 I finished the brakes with a set of new drums, painted flat black with header paint. I have seen far too many cars with rusty, decrepit looking drums peeking out from behind wheels costing thousands of dollars.



8 Once all of this work was finished, it was time to reinstall the gas tank.



5 New brake shoes, wheel cylinders and hardware complete the rear brakes. Once again, wheel cylinders and wheel hardware are relatively inexpensive—\$15 to \$20 per wheel—so I go with new.



7 My usual practice is to replace the universal joints, so I took care of this as well.



With the back half of the car complete, I moved on to the front end of The Red Rocket, including engine installation.

—Jeff Schira (FCA #6235)
Arlington, Texas